# SAFETY DATA SHEET

Agilent Technologies

Seahorse XF Hu T Cell Activation Assay Kit

## SECTION 1: Identification of the substance/mixture and of the company/ undertaking

### 1.1 Product identifier

**Product name** : Seahorse XF Hu T Cell Activation Assay Kit

**CAS number** :

| | |
|---|---|
| 2-deoxyglucose (2-DG) | 154-17-6 |
| ImmunoCult™ Human CD3/CD28 T Cell Activator | Not applicable. |

**Part no. (chemical kit)** : 103759-100, 103766-100

**Part no.** :

| | |
|---|---|
| 2-deoxyglucose (2-DG) | 103761-000 |
| ImmunoCult™ Human CD3/CD28 T Cell Activator | 103760-000 |

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** : For research use only.

| | |
|---|---|
| 2-deoxyglucose (2-DG) | 2 x 246.24 mg |
| ImmunoCult™ Human CD3/CD28 T Cell Activator | 1 x 2 ml |

**Uses advised against** : Not for use in diagnostic procedures (RUO).

### 1.3 Details of the supplier of the safety data sheet

Agilent Technologies Deutschland GmbH
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

**e-mail address of person responsible for this SDS** : pdl-msds_author@agilent.com

### 1.4 Emergency telephone number

**Emergency telephone number (with hours of operation)** : CHEMTREC®: +(44)-870-8200418

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** :

| | |
|---|---|
| 2-deoxyglucose (2-DG) | Mono-constituent substance |
| ImmunoCult™ Human CD3/CD28 T Cell Activator | Mixture |

**Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

Not classified.

| | |
|---|---|
| 2-deoxyglucose (2-DG) | The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended. |
| ImmunoCult™ Human CD3/CD28 T Cell Activator | The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended. |

**Ingredients of unknown toxicity** :

| | |
|---|---|
| ImmunoCult™ Human CD3/CD28 T Cell Activator | Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 1 - 10%<br>Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%<br>Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 1 - 10% |

## SECTION 2: Hazards identification

**Ingredients of unknown ecotoxicity** : ImmunoCult™ Human CD3/CD28 T Cell Activator — Contains 1.2% of components with unknown hazards to the aquatic environment

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Signal word** :
- 2-deoxyglucose (2-DG): No signal word.
- ImmunoCult™ Human CD3/CD28 T Cell Activator: No signal word.

**Hazard statements** :
- 2-deoxyglucose (2-DG): No known significant effects or critical hazards.
- ImmunoCult™ Human CD3/CD28 T Cell Activator: No known significant effects or critical hazards.

**Precautionary statements**

**Prevention** :
- 2-deoxyglucose (2-DG): Not applicable.
- ImmunoCult™ Human CD3/CD28 T Cell Activator: Not applicable.

**Response** :
- 2-deoxyglucose (2-DG): Not applicable.
- ImmunoCult™ Human CD3/CD28 T Cell Activator: Not applicable.

**Storage** :
- 2-deoxyglucose (2-DG): Not applicable.
- ImmunoCult™ Human CD3/CD28 T Cell Activator: Not applicable.

**Disposal** :
- 2-deoxyglucose (2-DG): Not applicable.
- ImmunoCult™ Human CD3/CD28 T Cell Activator: Not applicable.

**Supplemental label elements** :
- 2-deoxyglucose (2-DG): Not applicable.
- ImmunoCult™ Human CD3/CD28 T Cell Activator: Not applicable.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** :
- 2-deoxyglucose (2-DG): Not applicable.
- ImmunoCult™ Human CD3/CD28 T Cell Activator: Not applicable.

**Special packaging requirements**

**Tactile warning of danger** :
- 2-deoxyglucose (2-DG): Not applicable.
- ImmunoCult™ Human CD3/CD28 T Cell Activator: Not applicable.

### 2.3 Other hazards

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** :

| PBT | P | B | T | vPvB | vP | vB |
|---|---|---|---|---|---|---|
| **2-deoxyglucose (2-DG)** N/A | N/A | N/A | N/A | N/A | N/A | N/A |

ImmunoCult™ Human CD3/CD28 T Cell Activator: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

## SECTION 2: Hazards identification

**Other hazards which do not result in classification** : 2-deoxyglucose (2-DG) None known.
ImmunoCult™ Human CD3/CD28 T Cell Activator None known.

## SECTION 3: Composition/information on ingredients

**3.1 Substances** : 2-deoxyglucose (2-DG) Mono-constituent substance
ImmunoCult™ Human CD3/CD28 T Cell Activator Mixture

| Product/ingredient name | Identifiers | % | Classification | Specific Conc. Limits, M-factors and ATEs | Type |
|---|---|---|---|---|---|
| **2-deoxyglucose (2-DG)**<br><br>2-deoxy-D-glucose | EC: 205-823-0<br>CAS: 154-17-6 | 100 | Not classified.<br><br>**See Section 16 for the full text of the H statements declared above.** | - | [1] |

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

2-deoxyglucose (2-DG) [1] Constituent

Occupational exposure limits, if available, are listed in Section 8.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**Eye contact** : 2-deoxyglucose (2-DG) Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

ImmunoCult™ Human CD3/CD28 T Cell Activator Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Inhalation** : 2-deoxyglucose (2-DG) Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

ImmunoCult™ Human CD3/CD28 T Cell Activator Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Skin contact** : 2-deoxyglucose (2-DG) Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

ImmunoCult™ Human CD3/CD28 T Cell Activator Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

**Ingestion** : 2-deoxyglucose (2-DG) Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

ImmunoCult™ Human CD3/CD28 T Cell Activator Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

## SECTION 4: First aid measures

**Protection of first-aiders** : 2-deoxyglucose (2-DG): No action shall be taken involving any personal risk or without suitable training.

ImmunoCult™ Human CD3/CD28 T Cell Activator: No action shall be taken involving any personal risk or without suitable training.

### 4.2 Most important symptoms and effects, both acute and delayed

#### Potential acute health effects

**Eye contact** : 2-deoxyglucose (2-DG): No known significant effects or critical hazards.

ImmunoCult™ Human CD3/CD28 T Cell Activator: No known significant effects or critical hazards.

**Inhalation** : 2-deoxyglucose (2-DG): No known significant effects or critical hazards.

ImmunoCult™ Human CD3/CD28 T Cell Activator: No known significant effects or critical hazards.

**Skin contact** : 2-deoxyglucose (2-DG): No known significant effects or critical hazards.

ImmunoCult™ Human CD3/CD28 T Cell Activator: No known significant effects or critical hazards.

**Ingestion** : 2-deoxyglucose (2-DG): No known significant effects or critical hazards.

ImmunoCult™ Human CD3/CD28 T Cell Activator: No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

**Eye contact** : 2-deoxyglucose (2-DG): No specific data.

ImmunoCult™ Human CD3/CD28 T Cell Activator: No specific data.

**Inhalation** : 2-deoxyglucose (2-DG): No specific data.

ImmunoCult™ Human CD3/CD28 T Cell Activator: No specific data.

**Skin contact** : 2-deoxyglucose (2-DG): No specific data.

ImmunoCult™ Human CD3/CD28 T Cell Activator: No specific data.

**Ingestion** : 2-deoxyglucose (2-DG): No specific data.

ImmunoCult™ Human CD3/CD28 T Cell Activator: No specific data.

### 4.3 Indication of any immediate medical attention and special treatment needed

**Notes to physician** : 2-deoxyglucose (2-DG): Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

ImmunoCult™ Human CD3/CD28 T Cell Activator: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

**Specific treatments** : 2-deoxyglucose (2-DG): No specific treatment.

ImmunoCult™ Human CD3/CD28 T Cell Activator: No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

| | | | |
|---|---|---|---|
| **Suitable extinguishing media** | : | 2-deoxyglucose (2-DG) | Use an extinguishing agent suitable for the surrounding fire. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | Use an extinguishing agent suitable for the surrounding fire. |
| **Unsuitable extinguishing media** | : | 2-deoxyglucose (2-DG) | None known. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | None known. |

### 5.2 Special hazards arising from the substance or mixture

| | | | |
|---|---|---|---|
| **Hazards from the substance or mixture** | : | 2-deoxyglucose (2-DG) | No specific fire or explosion hazard. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | In a fire or if heated, a pressure increase will occur and the container may burst. |
| **Hazardous combustion products** | : | 2-deoxyglucose (2-DG) | Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide<br>nitrogen oxides<br>phosphorus oxides |

### 5.3 Advice for firefighters

| | | | |
|---|---|---|---|
| **Special precautions for fire-fighters** | : | 2-deoxyglucose (2-DG) | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |
| **Special protective equipment for fire-fighters** | : | 2-deoxyglucose (2-DG) | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents. |

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

| | | | |
|---|---|---|---|
| **For non-emergency personnel** | : | 2-deoxyglucose (2-DG) | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment. |

## SECTION 6: Accidental release measures

**For emergency responders**

2-deoxyglucose (2-DG): If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

ImmunoCult™ Human CD3/CD28 T Cell Activator: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**6.2 Environmental precautions**

2-deoxyglucose (2-DG): Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

ImmunoCult™ Human CD3/CD28 T Cell Activator: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**6.3 Methods and material for containment and cleaning up**

**Methods for cleaning up**

2-deoxyglucose (2-DG): Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Dispose of via a licensed waste disposal contractor.

ImmunoCult™ Human CD3/CD28 T Cell Activator: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**6.4 Reference to other sections**

See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

**7.1 Precautions for safe handling**

**Protective measures**

2-deoxyglucose (2-DG): Put on appropriate personal protective equipment (see Section 8).

ImmunoCult™ Human CD3/CD28 T Cell Activator: Put on appropriate personal protective equipment (see Section 8).

**Advice on general occupational hygiene**

2-deoxyglucose (2-DG): Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

ImmunoCult™ Human CD3/CD28 T Cell Activator: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**7.2 Conditions for safe storage, including any incompatibilities**

**Storage**

2-deoxyglucose (2-DG): Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use

## SECTION 7: Handling and storage

| | |
|---|---|
| | appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. |
| ImmunoCult™ Human CD3/CD28 T Cell Activator | Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. |

### 7.3 Specific end use(s)

| | | |
|---|---|---|
| **Recommendations** | : 2-deoxyglucose (2-DG) | Industrial applications, Professional applications. |
| | ImmunoCult™ Human CD3/CD28 T Cell Activator | Industrial applications, Professional applications. |
| **Industrial sector specific solutions** | : 2-deoxyglucose (2-DG) | Not available. |
| | ImmunoCult™ Human CD3/CD28 T Cell Activator | Not available. |

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**Occupational exposure limits**

No exposure limit value known.

**Biological exposure indices**

No exposure indices known.

**Recommended monitoring procedures** : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**DNELs/DMELs**

No DNELs/DMELs available.

**PNECs**

No PNECs available

### 8.2 Exposure controls

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

## SECTION 8: Exposure controls/personal protection

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

**Skin protection**

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### 9.1 Information on basic physical and chemical properties

**Appearance**

| | | | |
|---|---|---|---|
| **Physical state** | : | 2-deoxyglucose (2-DG) | Solid. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | Liquid. [Clear.] |
| **Colour** | : | 2-deoxyglucose (2-DG) | Not available. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | White. |
| **Odour** | : | 2-deoxyglucose (2-DG) | Not available. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | Not available. |
| **Odour threshold** | : | 2-deoxyglucose (2-DG) | Not available. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | Not available. |
| **Melting point/freezing point** | : | 2-deoxyglucose (2-DG) | 146 to 147°C |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | Not available. |
| **Initial boiling point and boiling range** | : | 2-deoxyglucose (2-DG) | Not available. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | Not available. |
| **Flammability** | : | 2-deoxyglucose (2-DG) | Not available. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | Not applicable. |

## SECTION 9: Physical and chemical properties

**Upper/lower flammability or explosive limits** :

| | |
|---|---|
| 2-deoxyglucose (2-DG) | Not applicable. |
| ImmunoCult™ Human CD3/CD28 T Cell Activator | Not available. |

**Flash point** :

| | |
|---|---|
| 2-deoxyglucose (2-DG) | Not applicable. |
| ImmunoCult™ Human CD3/CD28 T Cell Activator | Not available. |

**Auto-ignition temperature** :

| | |
|---|---|
| 2-deoxyglucose (2-DG) | Not applicable. |

**Decomposition temperature** :

| | |
|---|---|
| 2-deoxyglucose (2-DG) | Not available. |
| ImmunoCult™ Human CD3/CD28 T Cell Activator | Not available. |

**pH** :

| | |
|---|---|
| 2-deoxyglucose (2-DG) | Not available. |
| ImmunoCult™ Human CD3/CD28 T Cell Activator | Not available. |

**Viscosity** :

| | |
|---|---|
| 2-deoxyglucose (2-DG) | Not applicable. |
| ImmunoCult™ Human CD3/CD28 T Cell Activator | Not available. |

**Solubility(ies)** :

| Media | Result |
|---|---|
| **2-deoxyglucose (2-DG)** | |
| water | Soluble |
| **ImmunoCult™ Human CD3/CD28 T Cell Activator** | |
| water | Soluble |

**Partition coefficient: n-octanol/water** :

| | |
|---|---|
| 2-deoxyglucose (2-DG) | Not available. |
| ImmunoCult™ Human CD3/CD28 T Cell Activator | Not applicable. |

**Vapour pressure** :

| Ingredient name | Vapour Pressure at 20˚C | | | Vapour pressure at 50˚C | | |
|---|---|---|---|---|---|---|
| | mm Hg | kPa | Method | mm Hg | kPa | Method |
| **ImmunoCult™ Human CD3/CD28 T Cell Activator** | | | | | | |
| water | 17.5 | 2.3 | - | 92.258 | 12.3 | - |

**Evaporation rate** :

| | |
|---|---|
| 2-deoxyglucose (2-DG) | Not available. |
| ImmunoCult™ Human CD3/CD28 T Cell Activator | Not available. |

**Relative density** :

| | |
|---|---|
| 2-deoxyglucose (2-DG) | Not available. |
| ImmunoCult™ Human CD3/CD28 T Cell Activator | Not available. |

**Vapour density** :

| | |
|---|---|
| 2-deoxyglucose (2-DG) | Not applicable. |
| ImmunoCult™ Human CD3/CD28 T Cell Activator | Not available. |

**Explosive properties** :

| | |
|---|---|
| 2-deoxyglucose (2-DG) | Not available. |
| ImmunoCult™ Human CD3/CD28 T Cell Activator | Not available. |

## SECTION 9: Physical and chemical properties

| | | | |
|---|---|---|---|
| **Oxidising properties** | : | 2-deoxyglucose (2-DG) | Not available. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | Not available. |

**Particle characteristics**

| | | | |
|---|---|---|---|
| **Median particle size** | : | 2-deoxyglucose (2-DG) | Not available. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | Not applicable. |

### 9.2 Other information

No additional information.

## SECTION 10: Stability and reactivity

| | | | |
|---|---|---|---|
| **10.1 Reactivity** | : | 2-deoxyglucose (2-DG) | No specific test data related to reactivity available for this product or its ingredients. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | No specific test data related to reactivity available for this product or its ingredients. |
| **10.2 Chemical stability** | : | 2-deoxyglucose (2-DG) | The product is stable. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | The product is stable. |
| **10.3 Possibility of hazardous reactions** | : | 2-deoxyglucose (2-DG) | Under normal conditions of storage and use, hazardous reactions will not occur. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | Under normal conditions of storage and use, hazardous reactions will not occur. |
| **10.4 Conditions to avoid** | : | 2-deoxyglucose (2-DG) | No specific data. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | No specific data. |
| **10.5 Incompatible materials** | : | 2-deoxyglucose (2-DG) | May react or be incompatible with oxidising materials. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | May react or be incompatible with oxidising materials. |
| **10.6 Hazardous decomposition products** | : | 2-deoxyglucose (2-DG) | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity**

Not available.

**Acute toxicity estimates**

N/A

**Irritation/Corrosion**

**Conclusion/Summary** : Not available.

**Sensitiser**

## SECTION 11: Toxicological information

**Conclusion/Summary** : Not available.

**Mutagenicity**

**Conclusion/Summary** : Not available.

**Carcinogenicity**

**Conclusion/Summary** : Not available.

**Reproductive toxicity**

**Conclusion/Summary** : Not available.

**Teratogenicity**

**Conclusion/Summary** : Not available.

**Specific target organ toxicity (single exposure)**

Not available.

**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

Not available.

| | | | |
|---|---|---|---|
| **Information on likely routes of exposure** | : | 2-deoxyglucose (2-DG) | Not available. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | Not available. |

**Potential acute health effects**

| | | | |
|---|---|---|---|
| **Inhalation** | : | 2-deoxyglucose (2-DG) | No known significant effects or critical hazards. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | No known significant effects or critical hazards. |
| **Ingestion** | : | 2-deoxyglucose (2-DG) | No known significant effects or critical hazards. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | No known significant effects or critical hazards. |
| **Skin contact** | : | 2-deoxyglucose (2-DG) | No known significant effects or critical hazards. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | No known significant effects or critical hazards. |
| **Eye contact** | : | 2-deoxyglucose (2-DG) | No known significant effects or critical hazards. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | No known significant effects or critical hazards. |

**Symptoms related to the physical, chemical and toxicological characteristics**

| | | | |
|---|---|---|---|
| **Inhalation** | : | 2-deoxyglucose (2-DG) | No specific data. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | No specific data. |
| **Ingestion** | : | 2-deoxyglucose (2-DG) | No specific data. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | No specific data. |
| **Skin contact** | : | 2-deoxyglucose (2-DG) | No specific data. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | No specific data. |
| **Eye contact** | : | 2-deoxyglucose (2-DG) | No specific data. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | No specific data. |

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

# SECTION 11: Toxicological information

**Short term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Long term exposure**

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

**Potential chronic health effects**

**Conclusion/Summary** : Not available.

| | | | |
|---|---|---|---|
| **General** | : | 2-deoxyglucose (2-DG) | No known significant effects or critical hazards. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | No known significant effects or critical hazards. |
| **Carcinogenicity** | : | 2-deoxyglucose (2-DG) | No known significant effects or critical hazards. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | No known significant effects or critical hazards. |
| **Mutagenicity** | : | 2-deoxyglucose (2-DG) | No known significant effects or critical hazards. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | No known significant effects or critical hazards. |
| **Reproductive toxicity** | : | 2-deoxyglucose (2-DG) | No known significant effects or critical hazards. |
| | | ImmunoCult™ Human CD3/CD28 T Cell Activator | No known significant effects or critical hazards. |

### 11.2 Information on other hazards

#### 11.2.1 Endocrine disrupting properties

Not available.

#### 11.2.2 Other information

Not available.

# SECTION 12: Ecological information

### 12.1 Toxicity

**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

Not available.

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

**Soil/water partition coefficient ($K_{OC}$)** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

## SECTION 12: Ecological information

| Product/ingredient name | PBT | P | B | T | vPvB | vP | vB |
|---|---|---|---|---|---|---|---|
| **2-deoxyglucose (2-DG)**<br>2-deoxy-D-glucose | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

### 12.6 Endocrine disrupting properties

Not available.

### 12.7 Other adverse effects

No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

**Product**

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.

**Packaging**

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

| | ADR/RID | IMDG | IATA |
|---|---|---|---|
| **14.1 UN number or ID number** | Not regulated. | Not regulated. | Not regulated. |
| **14.2 UN proper shipping name** | - | - | - |
| **14.3 Transport hazard class(es)** | - | - | - |
| **14.4 Packing group** | - | - | - |
| **14.5 Environmental hazards** | No. | No. | No. |

**Additional information**

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

## SECTION 14: Transport information

**14.7 Transport in bulk according to IMO instruments** : Not available.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU Regulation (EC) No. 1907/2006 (REACH)

##### Annex XIV - List of substances subject to authorisation

###### Annex XIV

None of the components are listed.

###### Substances of very high concern

None of the components are listed.

##### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

No listed substance

**Label** :

| | |
|---|---|
| 2-deoxyglucose (2-DG) | Not applicable. |
| ImmunoCult™ Human CD3/CD28 T Cell Activator | Not applicable. |

#### Other EU regulations

##### Ozone depleting substances (1005/2009/EU)

Not listed.

##### Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

##### Persistent Organic Pollutants

Not listed.

##### Seveso Directive

This product is not controlled under the Seveso Directive.

#### International regulations

##### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

##### Montreal Protocol

Not listed.

##### Stockholm Convention on Persistent Organic Pollutants

Not listed.

##### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

##### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

#### Inventory list

**Australia** : Not determined.

**Canada** : Not determined.

**China** : Not determined.

**Eurasian Economic Union** : **Russian Federation inventory**: Not determined.

**Japan** : **Japan inventory (CSCL)**: Not determined.
**Japan inventory (ISHL)**: Not determined.

**New Zealand** : Not determined.

**Philippines** : Not determined.

## SECTION 15: Regulatory information

**Republic of Korea** : Not determined.

**Taiwan** : Not determined.

**Thailand** : Not determined.

**Turkey** : Not determined.

**United States** : Not determined.

**Viet Nam** : Not determined.

**15.2 Chemical safety assessment** : This product contains substances for which Chemical Safety Assessments might still be required.

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

**Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

| Classification | Justification |
|---|---|
| Not classified. | |

**Full text of abbreviated H statements**

Not applicable.

**Full text of classifications [CLP/GHS]**

Not applicable.

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**Date of previous issue** : 27/10/2023

**Version** : 2

**Notice to reader**

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